

Outcome Evaluation of the Achieving Collegiate Excellence and Success Program at Montgomery County Public Schools: Year Two

Office of Shared Accountability

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Table of Contents

Executive Summary		V
Summary of Methodology	V	
Summary of Findings	V	
Background		1
Evaluation Questions		2
Methodology		3
Measures of Academic Success	3	
Data Sources	3	
Study Sample	4	
Data Analysis	4	
Strengths and Limitations	4	
Findings		5
Evaluation Question 1: What is the academic success of the students in the ACES program? Are there differential patterns of achievement among student subgroups?	5	
End of year status.		5
Current and previous GPA		6
Participation and performance on SAT or ACT.		8
Participation and performance on ACCUPLACER.		9
Participation and performance on AP and IB exams		11
Evaluation Question 2: To what extent do the Grade 12 ACES students apply, gain acceptance, and attend a 2-year or 4-year college?	12	
All ACES graduates		12
Racial/ethnic subgroups		13
Special services receipt and first generation status subgroups		14
Evaluation Question 3: To what extent did the Grade 12 ACES students apply for financial aid and scholarships?		
Conclusion		16
Acknowledgements		16
References		17
Appendix A		18
Annendiy R		10

List of Tables

Table 1 Characteristics of 2014–2015 ACES Students	4
Table 2 End-of-Year Status for ACES Students for 2014–2015 and 2013–2014	5
Table 3 End of School Year Status Among ACES Students in 2014–2015 by Student Characteristics	6
Table 4 2014–2015 ACES Students' Current and Previous GPA by Grade Level	6
Table 5a Current and Previous GPA for Grade 12 Cohort of ACES Students by Racial/Ethnic Group.	7
Table 5b Current and Previous GPA for Grade 11 Cohort of ACES Students by Racial/Ethnic Group.	7
Table 6a Current and Previous GPA for Grade 12 Cohort of ACES Students by Services Received and First Generation Status	7
Table 6b Current and Previous GPA for Grade 11 Cohort of ACES Students by Services Received and First Generation Status	8
Table 7 Participation and Performance on SAT or ACT Among ACES Students in 2014–2015 and 2013–2014 for All Students and by Grade Level	8
Table 8 ACES Student Test-takers Who Met SAT or ACT Milestone in 2014–2015 by Student Characteristics	9
Table 9 ACCUPLACER Participation and Performance Among ACES Grade 12 Students in 2014–2015	
Table 10 Grade 12 ACES Student Test-takers Who Met ACCUPLACER Benchmarks in 2014–2015 by Student Characteristics	0
Table 11 Participation and Performance on AP or IB Exams Among ACES Students in 2014–2015	1
Table 12 Performance on AP/IB Milestone Among ACES Students in 2014–2015 for Total and by Grade Level	
Table 13 College Applications, Acceptances, and Attendance PlansAmong ACES Graduates	2
Table 14 College Attendance Plans Among ACES Graduates for 2014–2015 and 2013–2014	3
Table 15 College Applications and Enrollment Plans Among ACES Graduates by Race and Ethnicity	
Table 16 College Applications and Enrollment Plans Among ACES Graduates by Services Received and First Generation Status	
Table A1 MC Courses Among MCPS ACES Students in 2014–2015	8
Table A2 Final Grades for MC Courses Among ACES Students in 2014–2015 1	8
Table B1 Most Popular Colleges Among ACES Students With Plans to Attend a 4-Year College	9

Executive Summary

The Office of Shared Accountability (OSA) in Montgomery County Public Schools (MCPS) is conducting a multiyear evaluation of the Achieving Collegiate Excellence and Success (ACES) program. The ACES program is a collaboration between MCPS, Montgomery College (MC), and the Universities at Shady Grove (USG) to create a seamless pathway from high school to college completion. It focuses on identifying and supporting students who are underrepresented in higher education, the first in their family to attend college, or both. In 2014–2015, which was Year Two of the ACES program, students in Grades 11 and 12 at 10 high schools participated in ACES, as in Year One

This report focuses on a portion of the outcome evaluation; the goal is to analyze the extent to which the ACES program achieved its expected outcomes. A subsequent report will include analyses between ACES students and a comparison group of peers not in ACES. This report examines the following evaluation questions for Year Two:

- 1. What is the academic success of the students in the ACES program? Are there differential patterns of achievement among student subgroups?
- 2. To what extent do the Grade 12 ACES students apply, gain acceptance, and attend a 2-year or 4-year college?
- 3. To what extent do the Grade 12 ACES students apply for financial aid and scholarships?

Summary of Methodology

The sample for analyses included 1,019 students enrolled in ACES at MCPS for the 2014–2015 year (564 Grade 11 and 455 Grade 12 students). The majority of these students were Hispanic/Latino or Black or African American (82%), current or past recipients of Free and Reduced-price Meals Service (78%), and first generation to go to college (60%). Data were gathered from MCPS student-level records, the ACES program staff at MC, the Office of Research & Analysis at MC, and Naviance Inc. Descriptive analyses were conducted to summarize information on ACES students' characteristics as well as outcome and output measures. Where appropriate, student outcomes for Year One of ACES were compared to student outcomes for Year Two of ACES. In making these comparisons, it is worth noting that during Year One of ACES, only Grade 12 students participated for one year. Paired sample t-tests were conducted to compare mean grade point averages (GPAs) for ACES students during 2014–2015 and GPAs for the same cohort of students in prior years.

Summary of Findings

Academic success of students in ACES program. At the end of the school year, almost all ACES students were promoted to the next level. Grade 11 students were promoted to Grade 12 (89%), and Grade 12 students graduated (99%). Additionally, the mean GPA among Grade 12 students was statistically higher than the mean GPA for the same cohort of students in the year

prior to the ACES program (mean = 2.69, standard deviation = 0.61 vs. mean = 2.65, standard deviation = 0.67). Compared to other subgroups, Grade 11 Hispanic/Latino students had a lower promotion rate and Grade 11 and 12 Hispanic/Latino students had a lower GPA.

Seven out of ten ACES students took the SAT or ACT. Among the ACES test-takers, 18% met the MCPS college readiness milestone of 1650 or higher on the SAT or 24 or higher on the ACT. This compares to 12% of ACES students who met the milestone in the previous year, 2013–2014. Among the Grade 12 ACES students, 43% took the ACCUPLACER reading and English subtests, and 28% of those test-takers met the MC benchmark for taking a college-level English course. Among the ACES Grade 12 students, 46% took the mathematics ACCUPLACER, and of those students, 8% met the MC benchmark for college-level math. Finally, of the 1,019 ACES students, just over one third reached the MCPS AP/IB college readiness milestone (a 3 or higher on an AP exam or a 4 or higher on an IB exam). Performance varied among student subgroups; fewer Hispanic/Latino, Black or African American students receiving ESOL and those receiving special education services met the SAT/ACT, ACCUPLACER, or AP/IB milestones.

College applications and post-graduation plans. Among the Grade 12 ACES students who graduated, almost all applied to a 2-year or 4-year college. Furthermore, almost all indicated that they planned to attend a 2-year or 4-year college. Specifically 53% had plans to attend MC, 2% to another 2-year college, and 38% to a 4-year college.

Financial aid/scholarships. Almost one half of the ACES students in 2014–2015 earned scholarships totaling more than \$12,500,000. In the prior year, Year One of the program, students earned more than \$2,300,000 in scholarships. Earned scholarships can be from more than one school source (i.e., colleges, corporations, community agencies and non-profit organizations) and across more than one year.

Summary. In conclusion, as intended, the program served students who were members of an underrepresented race/ethnicity group, low income, or first generation to college. Further, the focus on getting students to graduate high school, apply for, and attend college has been successful. Almost all of the 12th grade ACES students graduated, and almost all graduates had plans to attend a 2-year or 4-year college. The mean GPA for Grade 12 students was significantly higher than the mean GPA for the same cohort of students in the year prior to the ACES program. Furthermore, as a whole, students in the ACES program earned a substantial amount of scholarship money. Areas for improvement, as suggested by the findings, are to focus on ways to help more students meet the college readiness milestones on the SAT/ACT or ACCUPLACER as well as on AP/IB exams.

Outcome Evaluation of the Achieving Collegiate Excellence and Success Program at Montgomery County Public Schools: Year Two

The Office of Shared Accountability (OSA) in Montgomery County Public Schools (MCPS) is conducting a multiyear evaluation of the Achieving Collegiate Excellence and Success (ACES) program. This report focuses on a portion of the outcome evaluation; the goal is to analyze the extent to which the ACES program achieved its expected outcomes. A subsequent report will include analyses between ACES students and a comparison group of peers not in ACES.

Background

The ACES program is a collaboration between MCPS, Montgomery College (MC), and the Universities at Shady Grove (USG). The program seeks to create a seamless pathway from high school to college completion. It focuses on identifying and supporting students who are from a group that is underrepresented in higher education, the first in their family to attend college, or both.

The ACES program at MCPS is for students in Grades 11 and 12 who meet one or more of the following risk factors: member of an underrepresented race/ethnicity group in higher education (such as Black or African American or Hispanic/Latino students); low income or single parent household; first generation college student; students receiving special education services¹; immigrant or child of immigrant parents; homeless students or those living in unstable conditions.

A central element to the ACES program is a case management approach where coaches mentor, advocate, and advise ACES students. They work with students on how to be successful in high school, complete college admission applications, negotiate the scholarship and financial aid process, and transition from high school to college, as well as provide weekly activities, group meetings, and college trips. Parents also are invited to attend selected workshops, such as completing financial aid paper work and applying for scholarships. The coaches, who are employed by MC, are based at each of the participating high schools and work with the counseling department in their school to manage the ACES program and share student information. These program activities are in addition to and align with the college and career supports provided by MCPS staff members. Students are expected to commit to their own academic success and participate in planned activities, as well as meet with their ACES coach on a regular basis.

In summary, the ACES program provides the following services to students in Grades 11 and 12 (MC, 2015):

- Individual relationship with a MC Academic Coach
- Preparation for college entrance and placement exams
- Information provided to parents on the college process

¹ Special education services provide specially designed instruction that involves modifications to the curriculum itself, to the way the curriculum is taught, or both, in order to meet the specific needs of the student. Students may also receive other special education-related services (e.g., speech and language therapy or occupational therapy) (MCPS, 2015).

- College visits
- Assistance with admissions applications, financial aid forms, and scholarship planning assistance
- Academic tutoring in partnership with George B. Thomas Saturday School and MC
- Career exploration and "how to choose a major"
- College information sessions for parents
- Assistance with the transition to college, including documentation for accommodations (if needed), and enrollment processes
- College information sessions for parents
- Summer enrichment programs between 10th and 11th grades at MC and 11th and 12th grades at USG
- Summer bridge program prior to fall entrance at MC

The 10 high schools that participated in the 2014–2015 ACES program were: Montgomery Blair, Clarksburg, Albert Einstein, Gaithersburg, John F. Kennedy, Northwood, Rockville, Seneca Valley, Wheaton, and Watkins Mill. It was expected that 60 students from Grade 11 and from Grade 12 at each school would participate in ACES, for an approximate total of 1,200 students. All 10 schools also participated in 2013–2014, so the Grade 12 students were in their second year of the ACES program and there was a new cohort of Grade 11 students for the 2014–2015 school year. In Year One of ACES, Grade 12 students had participated in ACES for only one year.

After graduation from high school, if students choose to attend MC and USG, they will receive continued support from an ACES academic coach at these colleges. Additionally, MC and USG have special ACES scholarships available for students in the program. Because the goal of the ACES program is for students to complete a 4-year degree, students are not required to attend MC and USG to participate in the program.

A review of relevant literature can be found in the report, Formative evaluation of Achieving Collegiate Excellence and Success Program at Montgomery County Public Schools Year Two: Student and parent experiences (Wolanin, 2015).

Evaluation Questions

This report examines the following evaluation questions:

- 1. What is the academic success of the students in the ACES program? Are there differential patterns of achievement among student subgroups?
- 2. To what extent do the Grade 12 ACES students apply, gain acceptance, and attend a 2-year or 4-year college?
- 3. To what extent do the Grade 12 ACES students apply for financial aid and scholarships?

Methodology

Measures of Academic Success

Because the ACES program offers academic coaching to students, including recommendations for tutoring and preparation for college placement tests, a variety of academic measures were examined among ACES students, including end-of-year promotion and graduation status and grade point average (GPA), along with college-readiness performance on ACCUPLACER, ACT, SAT, International Baccalaureate (IB) exams, and Advanced Placement (AP) exams. Where appropriate, student outcomes for Year One of ACES were compared to student outcomes for Year Two of ACES.

Performance on the ACCUPLACER placement test referred to whether students met MC's minimum college-ready scores. At MC, students are exempt from remedial English courses by attaining a score of 90 or above on ACCUPLACER English and a 79 or above on ACCUPLACER reading. With a score of 45 or higher on ACCUPLACER mathematics, a student would be eligible to take math courses at MC that are college-level and credit-bearing for certain majors (i.e., humanities, arts, social sciences, and health sciences). For other majors (e.g., business, engineering, science), the required score varies but is higher than 45.

Performance on other standardized tests referred to whether students met the MCPS college-readiness milestone. The milestone for SAT/ACT is a score of 1650 or higher on the SAT or a score of 24 or higher on the ACT. The MCPS college-readiness milestone for AP/IB exams is earning a 3 or higher on an AP exam or 4 or higher on an IB exam.

Data Sources

MCPS student-level records were used to obtain student demographic and achievement data such as grade level, special services receipt, race/ethnicity, ACCUPLACER scores if taken through MCPS, and performance and participation for ACT, SAT, IB exams and AP exams.

Montgomery College Office of Research & Analysis provided ACCUPLACER data for ACES students who took the ACCUPLACER exam through MC and final grades for ACES students who took MC courses while in high school (i.e., dual enrollment).

Data on students' college applications, college acceptances, and post-graduation plans were obtained through Naviance, Inc., an online career and college readiness tool used by MCPS high school students. School staff encourage students to enter this information and provide reminders; however, it is not mandatory. ACES program staff at MC also provided data on students' post-graduation plans, along with each student's first generation status, as reported by students on their ACES applications. For students with post-graduation plans to attend MC, the authors coded them as applying to MC and accepted at MC, if that data was missing.

Findings from a previous ACES outcome brief (Wolanin & Modarresi, 2015), provided student outcomes for Year One of the program. The 2014 MCPS Annual report provided districtwide data on GPA and performance on the SAT/ACT milestone and AP/IB milestone (MCPS, 2014).

Study Sample

The study sample for this report included 1,019 MCPS students enrolled in the ACES program during the 2014–2015 school year. Table 1 shows the grade level and characteristics of these students, including receipt of Free and Reduced-price Meal System (FARMS) and English for Speakers of Other Languages (ESOL) services. The majority of ACES students were Hispanic/Latino or Black or African American (82%), current or past recipients of FARMS (78%), and first generation to go to college (60%).

Table 1
Characteristics of 2014–2015 ACES Students

Characteristics of 201	4-2015	ACES S	tudents			
	To	otal	Grac	de 11	Grac	le 12
	N =	1,019	N =	564 ^a	N =	455
Characteristic	n	%	n	%	/n	%
Gender						
Female	628	61.6	357	63.3	271	59.6
Male	391	38.4	207	36.7	184	40.4
Race/Ethnicity						
American Indian ^b		≤1.0	0	0.0		≤1.0
Asian	94	9.2	51	9.0	43	9.5
Black or African American	448	44.0	251	44.5	197	43.3
Hispanic/Latino	385	37.8	213	37.8	172	37.8
White	59	5.8	29	5.1	30	6.6
Two or More Races	31	3.0	20	3.5	11	2.4
Services received as of September, 2014						
Current FARMS	573	56.2	323	57.3	250	54.9
Prior FARMS	221	21.7	122	21.6	99	21.8
Current special education	80	7.9	48	8.5	32	7.0
Current ESOL	62	6.1	49	8.7	13	2.9
Prior ESOL	547	53.7	281	49.8	266	58.5
Other						
First generation to go to college ^c	615	60.4	385	68.3	230	50.5

^aIncludes 55 students in Grade 10 based on earned high school credit and 5 students in their 2nd year of ACES.

Data Analysis

Descriptive analyses were conducted to summarize data on ACES students' characteristics as well as outcome and output measures. Where appropriate, student outcomes for Year One of ACES were shown alongside of student outcomes for Year Two of ACES to examine differences. Paired sample t-tests were used to compare mean GPAs of ACES students during 2014–2015 with GPAs of the same cohort of students from prior years.

Strengths and Limitations

A strength of this part of the ACES study is the inclusion of all ACES students in the analysis. A limitation of this study is that first generation status was based on students' self-reports on their ACES applications (which cannot be verified) and interpretation among students may vary. Also,

^bResults are not shown for groups with fewer than 10 students.

^cStudent self-reported data on ACES application.

the definition of *first generation* changed on the application from Year One to Year Two. Furthermore, two of the schools with ACES also have the Advancement Via Individual Determination (AVID) program, which is an elective course that prepares students for college and primarily targets first-generation, low-income, and minority students (AVID, 2015). Four percent of the ACES students are in the AVID program (3% of the 11th grade students and 6% of the 12th grade students). Therefore, these students are receiving additional support for college preparation during their AVID course, which may impact their academic and college readiness outcomes. This report contains descriptive outcomes and causality may not be inferred from this study due to the lack of an experimental design.

When interpreting the findings, note that in Year Two of the program, Grade 11 students are in their first year and Grade 12 students are in their second year of ACES. However, in Year One of the program, both Grade 11 and Grade 12 students had participated in ACES for only one year.

Findings

Results are organized by evaluation question.

Evaluation Question 1: What is the academic success of the students in the ACES program? Are there differential patterns of achievement among student subgroups?

End of year status. Among the 1,019 ACES students, 94% were promoted to the next level. As shown in Table 2, almost all Grade 11 students were promoted to Grade 12 (89%) and 99% of the Grade 12 students graduated; five of the Grade 12 students did not graduate. Results were similar to last year's findings, also shown in Table 2.

Table 2
End-of-Year Status for ACES Students for 2014–2015 and 2013–2014

		G	rade 1	1	(Grade 1	2		
End-of-year status	N	n	%	N	n	%	N	n	%
Promoted/graduated 2014–2015	1,019	954	93.6	564	504	89.4	455	450 ^a	98.9
Promoted/graduated 2013–2014	968	921	95.1	406 ^a	363	89.4	562	558	99.3

^aIncludes five students who graduated over the summer

Note. Percentage of students who graduated (shown above) is not the same as the MCPS 4-year graduation rate.

Promotion results for subgroups of students by race/ethnicity, special services receipt, and first generation status are shown in Table 3. Compared to Black or African American, White, and students identified as two or more races, Grade 11 Hispanic/Latino students had a lower promotion rate with 86% (compared to 90% for each of the respective subgroups), while Asian students had a higher promotion rate (96%). Recipients of ESOL and special education services had slightly lower rates with 89% and 90% respectively compared to prior ESOL recipients (94%), FARMS (93%), and first generation (93%).

Table 3
End of School Year Status Among ACES Students in 2014–2015 by Student Characteristics

		Total	1	C	Frade 1	1	Grade 12 ^a			
	Prome	oted/Gi	raduated	P	romote	d	Graduated			
End-of-year-status	N	n	%	N	n	%	N	n	%	
Total	1,019	954	93.6	564	504	89.4	455	450	98.9	
Race/ethnicity										
Asian	94	92	97.9	51	49	96.1	43	43	100.0	
Black or African American	448	421	94.0	251	227	90.4	197	194	98.5	
Hispanic/Latino	385	355	92.2	213	184	86.4	172	171	99.4	
White	59	56	94.9	29	26	89.7	30	30	100.0	
Two or more races	31	28	90.3	20	18	90.0	11	/10	90.9	
Services received										
ESOL	62	55	88.7	49	42	85.7	13	13	100.0	
Prior ESOL	410	384	93.7	234	209	89.3	176	175	99.4	
FARMS	573	533	93.0	323	287	88.9	250	246	98.4	
Special education	80	72	90.0	48	41	85.4	32	31	96.9	
First generation college student	615	572	93.0	385	343	89.1	230	229	99.6	

^aIncludes five students who graduated over the summer

Note. Percentage of students who graduated (shown above) is not the same as the MCPS 4-year graduation rate.

Note. Excludes the American Indian subgroup due to its small size.

Current and previous GPA. The current mean GPA of ACES students was compared to the same cohort of students' mean GPA in prior years. There was no significant difference between the current mean GPA (2014–2015) and mean GPA for the prior year (2013–2014) for both Grade 12 and Grade 11 students (Table 4). However, the current mean GPA for Grade 12 ACES students was significantly higher (difference = .04) than those students' GPA in the year before they started ACES (2012–2013) (t(445) = 2.95, p < .01).

Table 4
2014–2015 ACES Students' Current and Previous GPA by Grade Level

		A	CES St	udents' GF	PA	
GPA	N	Mean	SD^a	Median	Minimum	Maximum
Grade 12 Cohort						
End of 2014–2015 (Current Year)	455	2.69	0.61	2.74	0.78	4.00
End of 2013–2014 (Prior Year)	455	2.68	0.63	2.70	0.78	4.00
End of 2012–2013 (Prior to ACES)	446	2.65**	0.67	2.67	0.69	4.00
Grade 11 Cohort						
End of 2014–2015 (Current Year)	564	2.74	0.65	2.75	0.61	3.98
End of 2013–2014 (Prior to ACES)	563	2.74	0.66	2.79	0.63	4.00

^aSD = standard deviation

As shown in Table 5a, mean GPA of ACES Grade 12 students in 2014–2015 varied by racial/ethnic subgroup; Asian students had the highest GPA (M = 3.11, SD = .53) and Hispanic/Latino students had the lowest (M = 2.61, SD = 0.63). As seen for all Grade 12 students (see Table 4 above), each of the Grade 12 racial/ethnic subgroups had a higher mean GPA in 2014–2015 than in the year prior to ACES (2012–2013).

^{**}p < ..01 between 2012–2013 and 2014–2015

Table 5a Current and Previous GPA for Grade 12 Cohort of ACES Students by Racial/Ethnic Group

				Bla	ck or Afi	rican							
	Asian			an American				panic/La	atino	White			
Grade 12 Cohort GPA	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	
(Current Year)													
End of 2014–2015	43	3.11	0.53	197	2.67	0.56	172	2.61	0.63	30	2.75	0.51	
(Prior Year)													
End of 2013–2014	43	3.13	0.54	197	2.67	0.58	172	2.60	0.65	30	2.68	0.53	
End of 2012-2013	43	3.09	0.61	191	2.64	0.61	170	2.59	0.70	30	2.60	0.58	

SD = standard deviation

Note. Excludes the American Indian subgroup and the two or more races subgroup due to their small sizes.

Mean GPA also varied by racial/ethnic subgroup among Grade 11 ACES students in 2014–2015 (Table 5b). Asian students had the highest GPA (M = 3.12, SD = .58) and Hispanic/Latino students had the lowest (M = 2.66, SD = 0.65).

Table 5b
Current and Previous GPA for Grade 11 Cohort of ACES Students
by Racial/Ethnic Group

			-	Bla	ck or Af	rican	/						
		Asian	n American				His	panic/La	atino	White			
Grade 11 Cohort GPA	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	
(Current Year)													
End of 2014–2015	51	3.12	0.58	251	2.75	0.63	213	2.66	0.65	29	2.68	0.80	
(Prior Year)													
End of 2013–2014	51	3.13	0.60	250	2.74	0.65	213	2.68	0.65	29	2.68	0.80	

SD = standard deviation

Note. Excludes the American Indian subgroup and the two or more races subgroup due to their small sizes.

As shown in Table 6a, the mean GPA of ACES Grade 12 students in 2014–2015 varied by special services received and first generation status. The subgroups with the highest GPAs were Prior ESOL (M = 2.77, SD = 0.60) and first generation students (M = 2.70, SD = 0.60); recipients of FARMS (M = 2.61, SD = 0.61), ESOL (M = 2.48, SD = 0.56), and special education (M = 2.48, SD = 0.56) had lower GPA's. The only subgroup with a GPA that was higher in 2014–2015 than prior to ACES (in 2012–2013) was special education with a .03 difference.

Table 6a
Current and Previous GPA for Grade 12 Cohort of ACES Students
by Services Received and First Generation Status

			Uy S	CIVIC	CS IXCCC	iveu am	a r n st	Ochciai	1011 56	itus					
Grade 12 Cohort		FARMS	S		ESOL			Prior ESOL			cial educ	ation	First generation		
GPA	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
(Current Year)															
End of 2014–2015	250	2.61	0.61	13	2.48	0.56	176	2.77	0.60	32	2.48	0.56	230	2.70	0.60
(Prior Year)															
End of 2013-2014	250	2.62	0.63	13	2.52	0.61	176	2.78	0.62	32	2.43	0.55	230	2.69	0.63
End of 2012-2013	245	2.60	0.68	12	2.51	0.69	176	2.76	0.68	31	2.45	0.61	181	2.71	0.66

SD = standard deviation

Mean GPA for Grade 11 ACES students across subgroups of services received and first generation status is shown in Table 6b. In 2014–2015, the subgroup with the lowest mean GPA was recipients of special education (M = 2.27, SD = 0.57); mean GPA was between 2.74 and 2.79 for the remaining subgroups.

Table 6b
Current and Previous GPA for Grade 11 Cohort of ACES Students
by Services Received and First Generation Status

Grade 11 Cohort		FARMS	5	ESOL			Prior ESOL			Spe	cial educ	ation	First generation		
GPA	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	$N_{/}$	Mean	SD
(Current Year)															
End of 2014–2015	323	2.76	0.62	49	2.78	0.59	234	2.79	0.65	48	2.27	0.57	385	2.74	0.66
(Prior Year)															
End of 2013–2014	323	2.77	0.63	49	2.85	0.59	234	2.81	0.66	48	2.30	0.60	385	2.76	0.67

SD = standard deviation

Participation and performance on SAT or ACT. Seven out of ten ACES students took the SAT or ACT (Table 7). A higher percentage of Grade 12 students had taken these tests (78%) than Grade 11 students (64%). Among all ACES students who had taken one or both tests, 18% met the MCPS milestone of acquiring a score of 1650 or higher on the SAT or a score of 24 or higher on the ACT. This result compares to 12% of ACES students who met the milestone last year.

Table 7
Participation and Performance on SAT or ACT Among ACES Students in 2014–2015 and 2013–2014
for All Students and by Grade Level

		Total		(Grade 1	1	Grade 12 ^a			
ACES students	N	n	%	N	n	%	N	n	%	
2014–2015										
Took SAT or ACT	1,019	716	70.3	564	360	63.8	455	356	78.2	
Met SAT or ACT milestone ^b	716	131	18.3	360	66	18.3	356	65	18.3	
2013–2014										
Took SAT or ACT	968	654	67.6	406	275	67.7	562	379	67.4	
Met SAT or ACT milestone ^b	654	76	11.6	275	45	16.4	379	31	8.2	

^aIncludes five students who graduated over the summer

Additionally, Table 8 shows results for meeting the SAT/ACT milestone by subgroups. One third or more of the following test-taker subgroups met the SAT/ACT milestone: Asian (34%), White (33%), two or more races (38%). Sixteen percent of Black or African American and 12% of Hispanic/Latino students met the MCPS SAT/ACT milestone. About one out of seven prior ESOL recipients (16%), first generation students (16%), and FARMS recipients (14%) met the SAT or ACT milestone. None of the current ESOL recipients and almost none of the recipients of special education services who took the tests met the SAT/ACT milestone. More than one half (53%) of the Grade 11 White test-takers met the benchmark and 42% of the Grade 12 Asian students met the benchmark.

^bReceived a 1650+ on SAT or 24+ on ACT

Table 8
ACES Student Test-takers Who Met SAT or ACT Milestone in 2014–2015 by Student Characteristics

		Total		G	rade 1	1	Grade 12 ^a		
Group	N	n	%	N	n	%	N	n	%
Total	716	131	18.3	360	66	18.3	356	65	18.3
Race/ethnicity									
Asian	82	28	34.1	46	13	28.3	36	15	41.7
Black or African American	337	55	16.3	166	30	18.1	171	25	14.6
Hispanic/Latino	236	28	11.9	121	11	9.1	115	17	14.8
White	43	14	32.6	17	9	52.9	26	5	19.2
Two or more races	16	6	37.5	10	3	30.0	6	3	50.0
Services received									
ESOL	18	0	0.0	16	0	0.0	2	0	0.0
Prior ESOL	289	45	15.6	155	26	16.8	134	19	14.2
FARMS	385	52	13.5	205	27	13.2	180	25	13.9
Special education	32	1	3.1	12	0	0.0	20	1	5.0
First generation college student	403	63	15.6	240	33	13.8	163	30	18.4

^aIncludes five students who graduated over the summer

Note. Excludes the American Indian subgroup due to its small size.

Participation and performance on ACCUPLACER. ACCUPLACER is a computer-adaptive assessment that measures reading, English, and math skills. MC uses the ACCUPLACER for placement into appropriate courses. The ACCUPLACER scores shown in Table 9 include ACES Grade 12 students who took the ACCUPLACER through MCPS or MC in 2014–2015. Because a small number of Grade 11 students (fewer than 40) took the test, only results among Grade 12 students are examined.

At MC, students are exempt from remedial English courses by attaining a score of 90 or above on ACCUPLACER English and a 79 or above on ACCUPLACER reading. Of the Grade 12 ACES students, 43% took the ACCUPLACER reading and English subtests. Of those who took these subtests, 28% met the MC benchmark for taking a college-level English course.

With a score of 45 or higher on the ACCUPLACER college-level math test, a student is eligible to take mathematics courses at MC that are college-level and credit-bearing for certain majors (i.e., humanities, arts, social sciences, and health sciences). For other majors (e.g., business, engineering, science), the required score varies, but is higher than 45. As shown in Table 9, 46% of the ACES Grade 12 students took the math ACCUPLACER, and of those students, 8% met the benchmark for college-level math.

Table 9
ACCUPLACER Participation and Performance Among ACES Grade 12 Students in 2014–2015

	Grade 12		
ACCUPLACER subtest	N	n	%
Reading and English			
Completed subtest	455	194	42.6
Met Reading and English benchmark	194	55	28.4
College-level math			
Completed subtest	455	207	45.5
Met Math benchmark	207	16	7.7

Table 10 shows the percentage of Grade 12 students who met the ACCUPLACER benchmarks by student subgroups. Subgroups with fewer than 15 test-takers and Grade 11 test-takers are not shown due to their small size. The percentage of Grade 12 Black or African American test-takers who met the reading/English benchmark was 29% and Hispanic/Latino test-takers was 25%. No more than 13% of any one of the racial subgroups met the math benchmark.

The percentage of Grade 12 ACCUPLACER test-takers who met the reading/English benchmark did not vary greatly by services received and first generation subgroups (Table 10): prior ESOL (20%), FARMS (22%), and first generation (25%). No more than 9% of any one of the subgroups met the math benchmark.

Table 10
Grade 12 ACES Student Test-takers Who Met ACCUPLACER
Benchmarks in 2014–2015 by Student Characteristics

	Met reading/]	Met math			
	Engli	ish ber	nchmark	benchmark				
Group	N	n	%	N	n	%		
Race/ethnicity								
American Indian								
Asian								
Black or African American	73	21	28.8	78	8	10.3		
Hispanic/Latino	94	23	24.5	100	6	6.0		
White		-		15	2	13.3		
Two or more races								
Services received								
ESOL								
Prior ESOL	79	16	20.3	86	8	9.3		
FARMS	113	25	22.1	119	5	4.2		
Special education								
First generation college student	102	25	24.5	107	5	4.7		

Note. Subgroups with fewer than 15 test-takers are not shown due to small size (--).

Participation and performance on AP and IB exams. Of the 1,019 ACES students, 54% have taken at least one AP or IB exam, and 46% have not taken either (Table 11). Sixty percent of Grade 12 students have taken at least one of the exams compared to 49% of Grade 11 students. Furthermore, more than one fourth (26%) have taken three or more exams; one third of Grade 12 students have taken three or more exams.

Table 11
Participation and Performance on AP or IB Exams Among ACES Students in 2014–2015

		otal 1,019)		de 11 564)		de 12 = 455)
Outcome measure	n	%	n	%	n	%
AP or IB exams taken						
Took at least one exam (AP and/or IB)	551	54.1	277	49.1	274	60.2
Did not take an AP or IB exam	468	45.9	287	50.9	181	39.8
Number of AP or IB exams taken						
Took one exam (AP and/or IB)	163	16.0	104	18.4	59	13.0
Took two exams (AP and/or IB)	127	12.5	64	11.3	63	13.8
Took three or more exams (AP and/or IB)	261	25.6	109	19.3	152	33.4

Table 12 shows the percentage of ACES students by total and subgroup who met the MCPS college readiness milestone of a 3 or higher on an AP exam or a 4 or higher on an IB exam. Just over one third (34%) of ACES students reached the AP/IB milestone; the percentage was higher among Grade 12 students (38%). The percentages of students who met the MCPS AP/IB milestone varied by racial subgroups: Asian (50%), Black or African American (24%), Hispanic/Latino (42%), White (34%), and two or more races (29%). The percentage of students who met the milestone also varied across the following subgroups: ESOL (24%), prior ESOL (40%), FARMS (33%), special education (8%), and first generation students (35%).

Table 12
Performance on AP/IB Milestone Among ACES Students in 2014–2015 for Total and by Grade Level

/		Γotal		Gı	rade 1	1		Grade 1	12
Met AP/IB Milestone ^a	N	n	%	N	n	%	N	n	%
Total	1,019	345	33.9	564	172	30.5	455	173	38.0
Race/ethnicity									
Asian	94	47	50.0	51	19	37.3	43	28	65.1
Black or African American	448	107	23.9	251	55	21.9	197	52	26.4
Hispanic/Latino	385	162	42.1	213	83	39.0	172	79	45.9
White	59	20	33.9	29	11	37.9	30	9	30.0
Two or more races	31	9	29.0	20	4	20.0	11	5	45.5
Services received									
ESOL	62	15	24.2	49	12	24.5	13	3	23.1
Prior ESOL	410	164	40.0	234	83	35.5	176	81	46.0
FARMS	573	186	32.5	323	93	28.8	250	93	37.2
Special education	80	6	7.5	48	3	6.3	32	3	9.4
First generation college student	615	212	34.5	385	119	30.9	230	93	40.4

^aMilestone is earning a 3 or higher on an AP exam or 4 or higher on an IB exam.

Note. Excludes the American Indian subgroup due to its small size.

Participation and performance in MC courses. ACES students took a variety of MC courses (see Appendix A). Specifically, 50 ACES students took a course at MC while attending Grade 11 or 12 at MCPS in 2014–2015. About one half (48%) of those students took one course during the school year and 40% took two courses. Another six students (12%) took three or more courses. The most popular courses among the 50 students were Communication Studies (n = 18, 36%) and Psychology/Sociology (n = 11, 22%).

A breakdown of the final grades for the 88 total courses taken is in Appendix F. Almost one half (48%) of the final grades were A's and almost one third (31%) were B's. Of the 88 MC courses taken among the 50 ACES students, the mean final grade was 3.13 (SD = 1.1) where an A = 4, B = 3, C = 2, D = 1, and an F = 0.

Evaluation Question 2: To what extent do the Grade 12 ACES students apply, gain acceptance, and attend a 2-year or 4-year college?

Data on students' college applications, college acceptances, and post-graduation plans were obtained through Naviance, Inc., an online career and college readiness tool used by MCPS high school students. ACES program staff at MC also provided data on students' post-graduation plans.

All ACES graduates. Among the Grade 12 ACES students who graduated, almost all (96%) applied to either a 2-year or 4-year college; about two thirds applied to MC or another 2-year college (68%), and a similar percentage (64%) applied to a 4-year college (Table 13). Almost all ACES graduates (95%) gained acceptance to a 2-year or 4-year college, including one half (51%) who gained acceptance into a 4-year college. Furthermore, almost all (93%) of the graduates planned to attend a 2-year or 4-year college. Specifically, among those planning to attend college, 53% had plans to attend MC, 2% another 2-year college, and 38% a 4-year college. Another 2% of the graduates had plans to enroll in the military or another type of school, such as technical or culinary.

Table 13
College Applications, Acceptances, and Attendance PlansAmong ACES Graduates

	ACES (A	V = 450)
Institutions	n	%
Applications ^a		
2-year or 4-year	430	95.6
MC/other 2-year	305	67.8
4-year	289	64.2
Acceptances ^a		
2-year or 4-year	429	95.3
MC/other 2-year	300	66.7
4-year	229	50.9
Plans to attend		
MC	237	52.7
2-year (other than MC)	11	2.4
4-year	170	37.8
Other/none/unknown	32	7.1
	0.50/ 1 0	1.4

Table 14 shows the ACES Grade 12 students' post-graduate plans compared to last year. Plans to attend a 2-year or 4-year college were slightly higher (93% versus 88%). Over one third (38%) reported plans to attend a 4-year college, compared to 25% last year. However, it should be noted that in 2014–2015, there was an additional source of data: Naviance, an online career and college readiness computer program used by MCPS high schools. Last year, the only data source was ACES coaches.

Table 14
College Attendance Plans Among ACES Graduates for 2014–2015 and 2013–2014

101 2011 2013 tille 2	013 201	•		
	2014-2015 ($N = 450$)		2013-	-2014
			(N =	549)
Plans to attend college	n	%	n	%
2-year or 4-year	418	92.9	480	87.5
MC	237	52.7	330	60.1
2-year other than MC	11	2.4	13	2.4
4-year	170	37.8	137	25.0

Note. 2015 data from Naviance and ACES program

Note. 2014 data from ACES program; missing information not included in N

Out of the 170 ACES students who planned to enroll in a 4-year college, University of Maryland College Park (n=25) and Towson University (n=23) were schools chosen by the most students. A table of universities with three or more student counts is in Appendix B.

Racial/ethnic subgroups. As shown in Table 15, almost all students in each racial/ethnic subgroup applied to a 2-year or 4-year college. There was more variation across these subgroups in applications to a 2-year college; 76% of Hispanic/Latino students did so, but fewer Asian (54%), Black or African American (65%), and White students did so (63%). There was also variation in applications to a 4-year college; the majority (70%–77%) of Asian, Black or African American, and White students did so, but less than one half (48%) of Hispanic/Latino students applied to a 4-year college. The variations across racial/ethnic subgroups in acceptances to 2-year or 4-year colleges were similar to the variations for applications to these institutions.

Table 15
College Applications and Enrollment Plans Among ACES Graduates by Race and Ethnicity

	Asi N =		Black or African American $N = 194$		Hispanic/Latino $N = 171$		White $N = 30$	
Institutions	n	%	n	%	n	%	n	%
Applications								
2-year or 4-year	41	95.3	190	97.9	159	93.0	30	100.0
MC/other 2-year	23	53.5	126	64.9	130	76.0	19	63.3
4-year institutions	30	69.8	150	77.3	82	48.0	22	73.3
Acceptances								
2-year or 4-year	41	95.3	190	97.9	159	93.0	29	96.7
MC/other 2-year	23	53.5	122	62.9	129	75.4	19	63.3
4-year institutions	27	62.8	123	63.4	58	33.9	17	56.7
Plans to attend								
MC	17	39.5	88	45.4	112	65.5	16	53.3
2-year other than MC	0	0.0	6	3.1	2	1.2	2	6.7
4-year institutions	23	53.5	93	47.9	39	22.8	11	36.7
Other/none/unknown	3	7.0	7	3.6	18	10.6	1	3.3

Note. Students may apply or gain acceptance to more than one institution; therefore, percentages may not add to 100%. *Note.* Excludes the American Indian subgroup and the two or more races subgroup due to their small sizes.

Almost all students in each racial subgroup had plans to attend a 2-year or 4-year college. However, the type of institution chosen varied across subgroups. Asian (54%) and Black or African American (48%) students more frequently chose 4-year colleges, while 2-year colleges were more popular with Hispanic/Latino (66%) and White (53%) students.

Special services receipt and first generation status subgroups. A breakdown of college applications, acceptances, and attendance plans by services received and first generation status is in Table 16. Almost all students in each subgroup applied to a 2-year or 4-year college. While almost all ESOL recipients (92%) applied to and gained acceptance to 2-year colleges, somewhat fewer, about three fourths (71%–74%), of the students in the other subgroups applied to and gained acceptance to a 2-year college. There also were variations in applications and acceptances to 4-year colleges. More than one half (58%–60%) of FARMS recipients, prior ESOL recipients, and first generation students applied to a 4-year college; 48% of special education recipients and none of the ESOL recipients did. Slightly less than one half (44%–47%) of FARMS recipients, prior ESOL recipients, and first generation students were accepted to a 4-year college, while less than one third (29%) of special education recipients were accepted.

Table 16
College Applications and Enrollment Plans Among ACES Graduates
by Services Received and First Generation Status

		RMS 246		SOL = 13	Prior N =	ESOL 175	Spe educa N =	ation	First general $N = 2$	tiona
Institutions	n	%	n	%	n	%	n	%	n	%
Applications										
2-year or 4-year	233	94.7	12	92.3	168	96.0	30	96.8	217	94.8
MC/other 2-year	180	73.2	12	92.3	127	72.6	23	74.2	163	71.2
4-year institutions	142	57.7	0	0.0	105	60.0	15	48.4	134	58.5
Acceptances										
2-year or 4-year	233	94.7	12	92.3	168	96.0	29	93.5	217	94.8
MC/other 2-year	178	72.4	12	92.3	127	72.6	23	74.2	160	69.9
4-year institutions	109	44.3	0	0.0	83	47.4	9	29.0	107	46.7
Plans to attend (specified)										
MC	145	58.9	12	92.3	105	60.0	21	67.7	130	56.8
2-year other than MC	3	1.2	0	0.0	2	1.1	0	0.0	3	1.3
4-year institutions	77	31.3	0	0.0	54	30.9	7	22.6	77	33.6
Other/none/unknown	21	8.5	1	7.7	14	8.0	3	9.7	19	8.3

Note. Students may apply or gain acceptance to more than one institution; therefore, percentages may not add to 100%. aStudent self-reported data on ACES application

Almost all students in these subgroups had plans to attend a 2-year or 4-year college. Almost all (92%) of the students who received ESOL services had attendance plans to MC; somewhat fewer students, about six out of ten (57%–68%), in all other subgroups had plans to attend MC (an additional 1% are planning to attend another 2-year college). Approximately one third (31%–34%) of FARMS recipients, prior ESOL recipients, and first generation students had plans to attend a 4-year college. Somewhat fewer, about one fourth (23%), of students who received special education services had attendance plans to a 4-year college.

Evaluation Question 3: To what extent did the Grade 12 ACES students apply for financial aid and scholarships?

Because a barrier for many ACES students to attend college is access to funding, it is imperative that students are encouraged to apply for scholarships. In 2014–2015, 218 of the ACES graduates, which was almost one half (48%), earned scholarships totaling more than \$12,500,000. In the prior year, Year One of the program, students earned more than \$2,300,000 in scholarships. Earned scholarships can be from more than one source (i.e., colleges, corporations, community agencies, and non-profit organizations) and across more than one year. They included Pell Grants, university specific scholarships, and other scholarships such as Star, Comcast, Future Link, and MC Foundation.

Conclusion

In conclusion, as intended, the ACES program served students who were members of an underrepresented race/ethnicity group, low income, or first generation to college. Additionally, the focus on getting students to graduate from high school, apply for, and attend college has been successful. Almost all of the 12th grade ACES students graduated and almost all graduates had plans to attend a 2-year or 4-year college. The mean GPA for Grade 12 students was significantly higher than the mean GPA for the same cohort of students in the year prior to the ACES program. Furthermore, as a whole, students in the ACES program earned a substantial amount of scholarship money. Areas for improvement, as suggested by the findings, are to focus on ways to help more students meet the college readiness milestones on the SAT/ACT or ACCUPLACER as well as on AP/IB exams.

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Appendix A

Table A1
MC Courses Among MCPS ACES Students in 2014–2015

THE COMISSI THICK	g.mer & reell & statement in 2011. 2010	AC: stude (N =	ents
Course code	Course name	n	%
COMM108	Communication Studies	18	36.0
PSYC102, 211,221,/SOCY100	Psychology/Sociology	11	22.0
	Computer Application/Computer SCI		
CMAP120,125/CMSC140,201,260	and Technology	8	16.0
NUTR101	Nutrition and Food	7	14.0
BIOL101,130,150,212	Biological Science	6	12.0
ACCT222/BSAD101	Accounting/Business Administration	5	10.0
MUSC131	Music	5	10.0
CMGT100	Construction Management	4	8.0
MATH096,117,282	Mathematics	4	8.0
AUTO101,161	Automotive Technology	3	6.0
PHIL201	Philosophy	3	6.0
ANTH201	Anthropology	2	4.0
ARTT100	Art	2	4.0
ENGL102,110	English	2	4.0
ITAL101/JAPN099	Italian/Japanese	2	4.0
POLI203	Political Science	2	4.0
WMST101	Women's Studies	2	4.0
CCJS110	Criminal Justice	1	2.0
ECON202	Economics	1	2.0

Table A2
Final Grades for MC Courses Among
ACES Students in 2014–2015

/	MC courses taken				
	(Λ	<i>I</i> =88)			
Final grade	n	%			
A	42	47.7			
В	27	30.7			
C	12	13.6			
D	2	2.3			
F	5	5.7			

Appendix B

Table B1 Most Popular Colleges Among ACES Students With Plans to Attend a 4-Year College

with Plans to Attend a 4- year College						
	T	otal				
	N =	= 170				
School name	n	%				
University of Maryland College Park	25	14.7				
Towson University	23	13.5				
University of Maryland Baltimore County	9	5.3				
University of Maryland Eastern Shore	6	3.5				
Morgan State University	6	3.5				
Frostburg State University	5	2.9				
Mount St. Mary's	4	2.4				
West Virginia State University	3	1.8				
Wesley College	3	1.8				
Stevenson University	3	1.8				
St. Mary's College of MD	3	1.8				
Salisbury University	3	1.8				
George Mason University	3	1.8				
Coastal Carolina University	3	1.8				
All other universities	64	37.6				

Note. Includes only 4-year colleges with three or more ACES students who plan to attend *Note.* From data entered into Naviance, Inc. and from ACES Program staff